Patent claims

1. A multilayer, transparent, biaxially oriented polyester film made from at least one base layer (B) which comprises at least 80% by weight of thermoplastic polyester, and from, applied to this base layer (B), at least one transparent, high-gloss outer layer (A), wherein the transparent outer layer (A) also comprises an amount in the range from 0.05 to 0.5% by weight, based on the total weight of the outer layer (A), of a pigment system which has the following features:
   a) the median grain diameter (d_{50}) is in the range from 1.5 to 5 µm and
   b) the spread of the distribution of the grain size, expressed by the SPAN 98, is less than or equal to 1.9.

2. The multilayer, transparent polyester film as claimed in claim 1, wherein the transparent outer layer (A) comprises a pigment system which has a median grain diameter (d_{50}) in the range from 1.6 to 4.9 µm.

3. The multilayer, transparent polyester film as claimed in claim 1, wherein the transparent outer layer (A) comprises a pigment system which has a SPAN 98 of less than or equal to 1.8.

4. The multilayer, transparent polyester film as claimed in claim 1, which has a three-layer structure with a base layer (B) and, arranged on the two sides of the base layer (B), outer layers (A) and (C), and which has an overall thickness in the range from 3 to 80 µm, and wherein the thickness of the outer layers (A) and (C) is in the range from 0.1 to 5 µm, and wherein outer layers (A) and (C) are of identical or different thickness.

5. The multilayer, transparent polyester film as claimed in claim 1, whose gloss is greater than or equal to 170 and whose haze is less than or equal to 2.5%.

6. The multilayer, transparent polyester film as claimed in claim 1, whose roughness, expressed as its R_a value, is in the range from 30 to 150 nm, and whose value measured for surface gas flow is in the range from 4 to 200 s.

7. The multilayer, transparent polyester film as claimed in claim 1 whose planar orientation Δp is greater than or equal to 0.165.

8. A process for producing a multilayer, transparent polyester film as claimed in claim 1 by coextrusion, by first compressing, plasticizing, and thereby homogenizing the polyesters of the respective layers in extruders, at which juncture any additives used may already be present in the respective polymer, and then by pressing the melts through a flat-film coextrusion die, and drawing off the extruded multilayer film on one or more take-off rolls and solidifying the same to give a prefilm, and then biaxially stretching the solidified prefilm, and heat-setting the biaxially stretched film and, where appropriate, corona- or flame-treating the same on that surface intended for treatment, which comprises using a longitudinal stretching temperature in the range from 80 to 130°C and using a transverse stretching temperature in the range from 90 to 150°C, and which comprises using a longitudinal stretching ratio in the range from 2.5:1 to 6:1, and using a transverse stretching ratio in the range from 3.0:1 to 5.0:1.

9. The process as claimed in claim 8, wherein, after stretching, the film is heat-set for a period in the range from 0.1 to 10 s at a temperature of from 150 to 250°C.

10. The process as claimed in claim 8, wherein one or both surfaces of the film is/are also corona- or flame-treated, the intensity of treatment set being such as to give the film a surface tension in the range greater than or equal to 45 mN/m.

11. The process as claimed in claim 8, wherein cut material arising during film production is reintroduced as regrind to the extrusion process in amounts in the range from 20 to 60% by weight, based on the total weight of the film.